FIG. 1

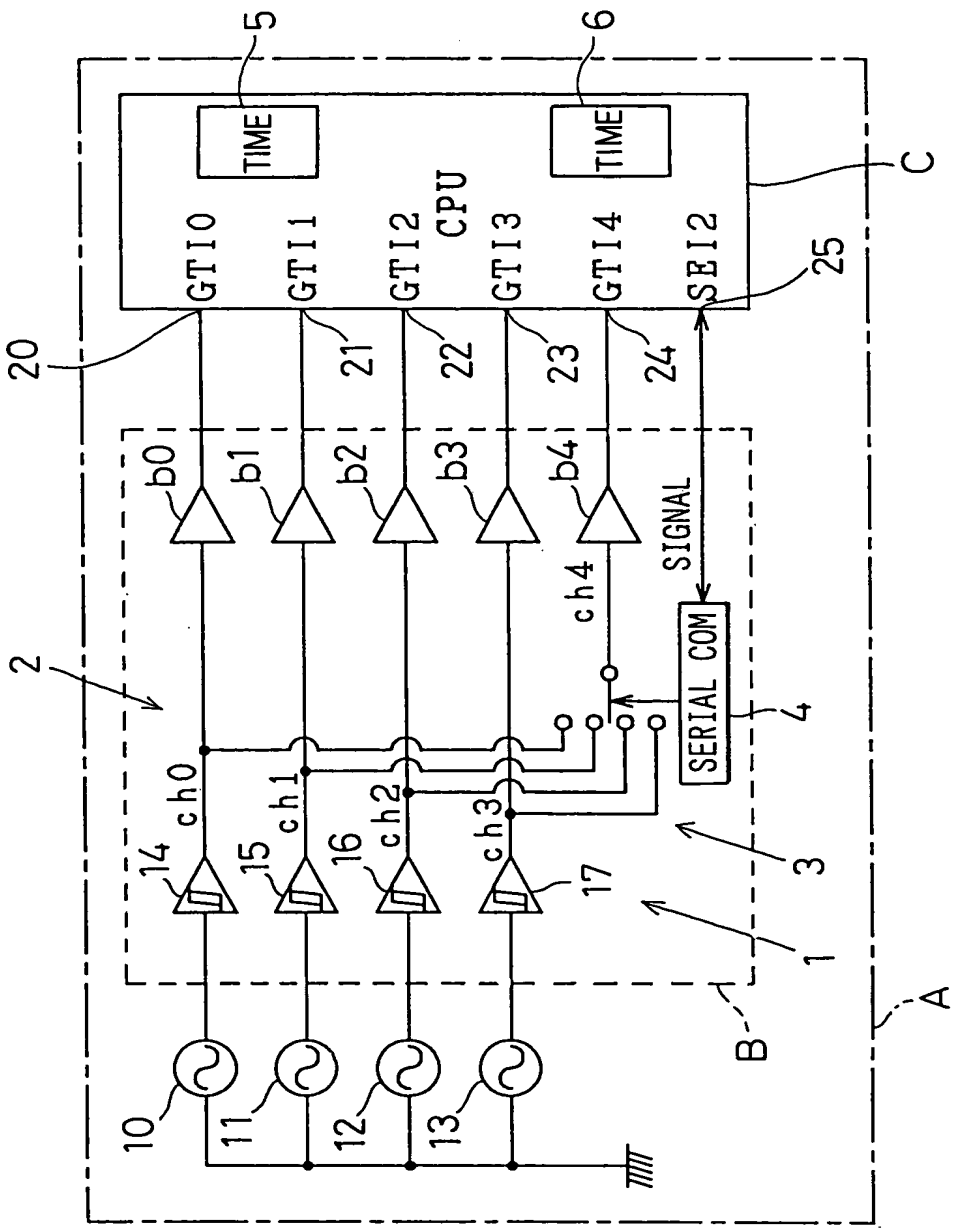

A
B
C
1
2
3
4
5
6
10
11
12
13
14
15
16
17
20
21
22
23
24
25
TIME
TIME
CPU
GTI0
GTI1
GTI2
GTI3
GTI4
SEI2
b0
b1
b2
b3
b4
ch0
ch1
ch2
ch3
ch4
SIGNAL
SERIAL COM

FIG. 2

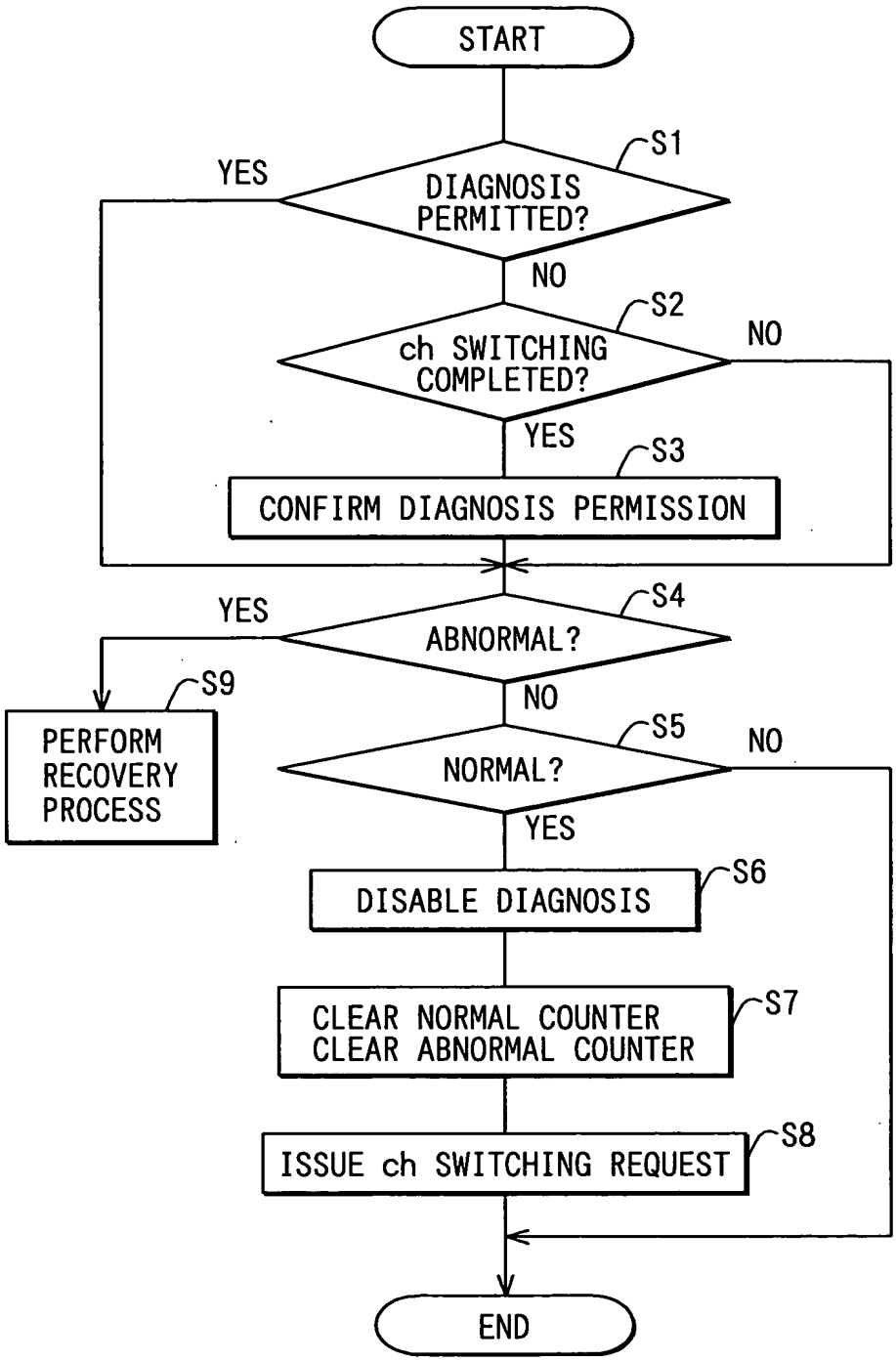

START
S1
DIAGNOSIS PERMITTED?
YES
NO
S2
ch SWITCHING COMPLETED?
NO
YES
S3
CONFIRM DIAGNOSIS PERMISSION
S4
ABNORMAL?
YES
NO
S9
PERFORM RECOVERY PROCESS
S5
NORMAL?
NO
YES
S6
DISABLE DIAGNOSIS
S7
CLEAR NORMAL COUNTER
CLEAR ABNORMAL COUNTER
S8
ISSUE ch SWITCHING REQUEST
END

FIG. 3

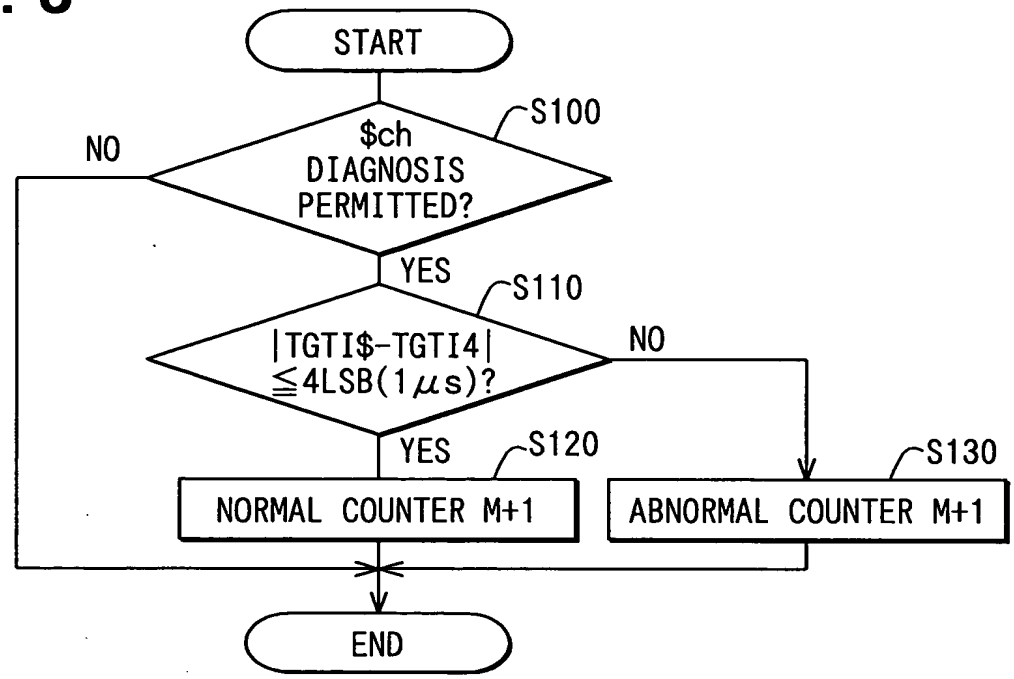
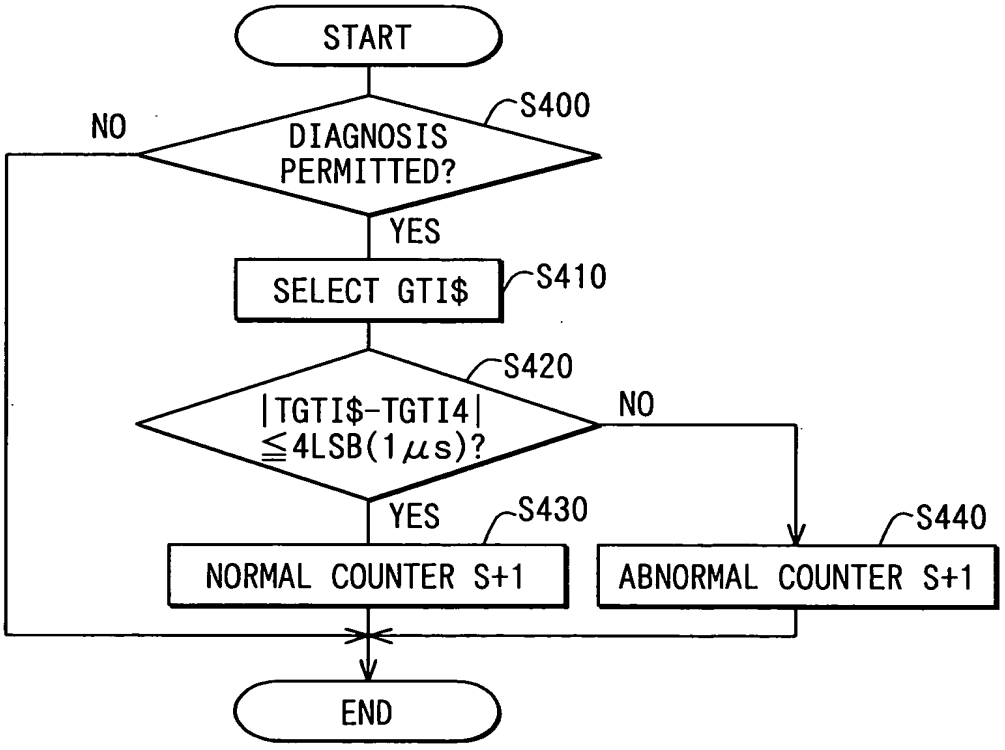

START
$ch DIAGNOSIS PERMITTED?
S100
NO
YES
|TGTI$-TGTI4| ≦4LSB(1μs)?
S110
NO
YES
S120
NORMAL COUNTER M+1
S130
ABNORMAL COUNTER M+1
END

FIG. 4


START
DIAGNOSIS PERMITTED?
S400
NO
YES
SELECT GTI$
S410
S420
|TGTI$-TGTI4| ≦4LSB(1μs)?
NO
YES
S430
NORMAL COUNTER S+1
S440
ABNORMAL COUNTER S+1
END